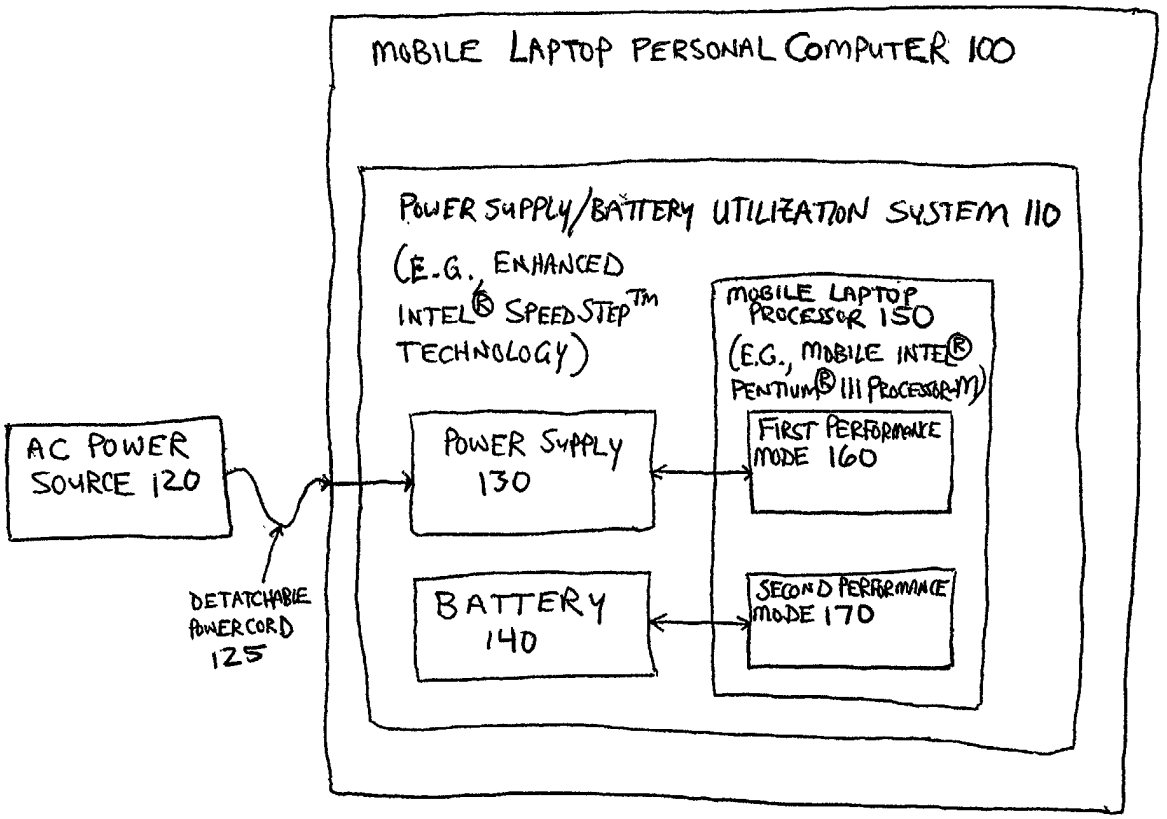
MOBILE LAPTOP PERSONAL COMPUTER 100
POWER SUPPLY/BATTERY UTILIZATION SYSTEM 110
(E.G., ENHANCED INTEL® SPEEDSTEP™ TECHNOLOGY)
MOBILE LAPTOP PROCESSOR 150
(E.G., MOBILE INTEL® PENTIUM® III PROCESSOR-M)
AC POWER SOURCE 120
POWER SUPPLY 130
FIRST PERFORMANCE MODE 160
BATTERY 140
SECOND PERFORMANCE MODE 170
DETATCHABLE POWER CORD 125

FIGURE 1

TD8260 "2E029660

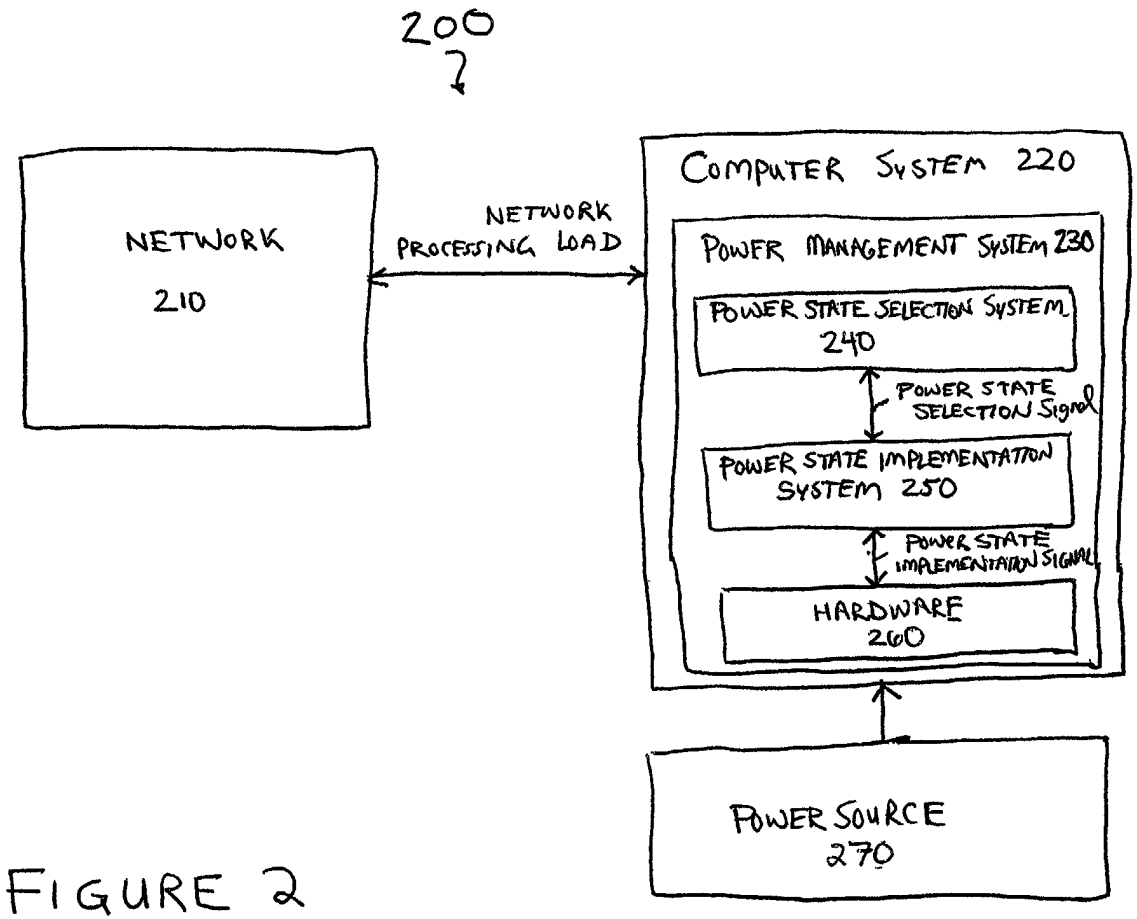

FIGURE 2

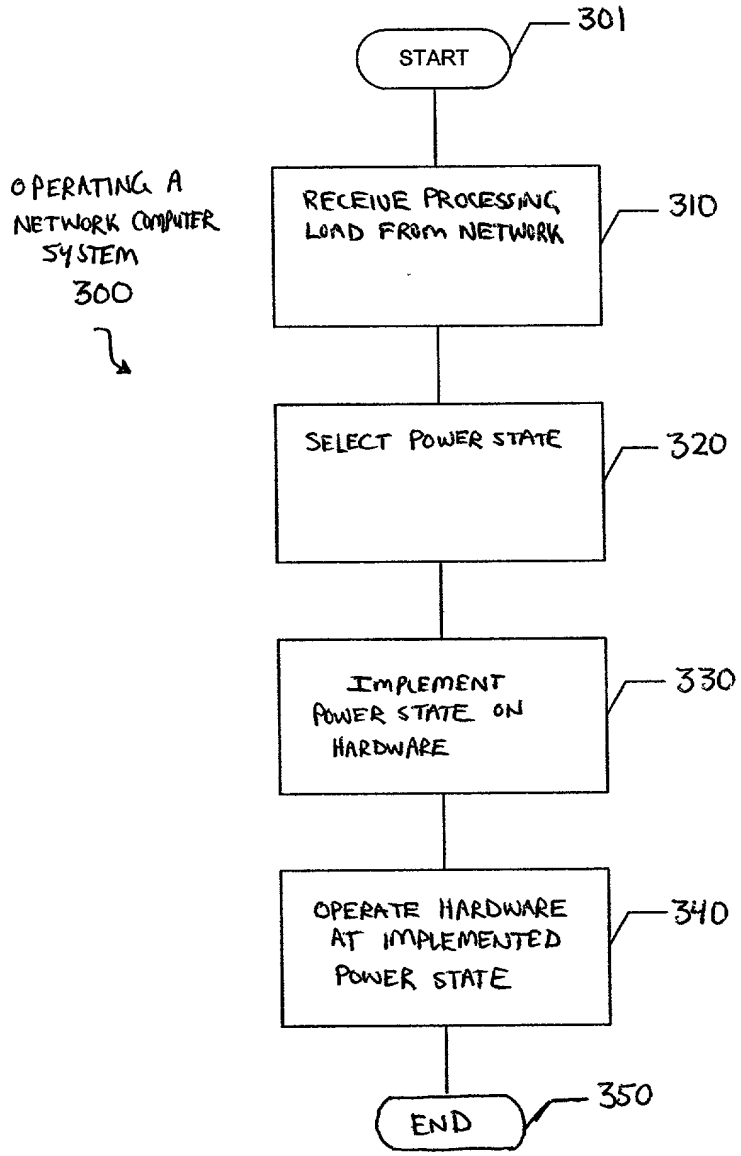
OPERATING A NETWORK COMPUTER SYSTEM
300
START
301
RECEIVE PROCESSING LOAD FROM NETWORK
310
SELECT POWER STATE
320
IMPLEMENT POWER STATE ON HARDWARE
330
OPERATE HARDWARE AT IMPLEMENTED POWER STATE
340
END
350

FIGURE 3

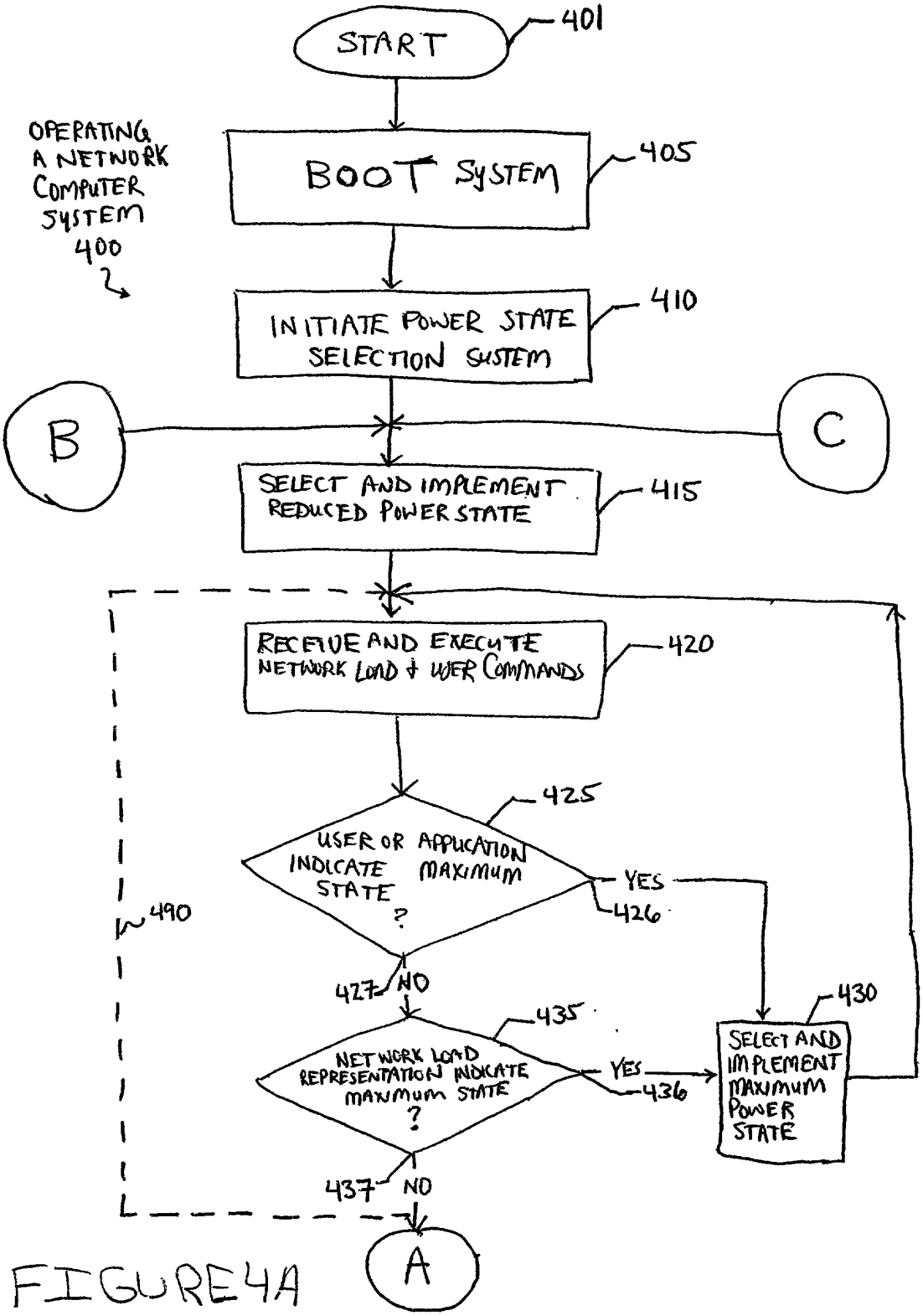
START
401
OPERATING A NETWORK COMPUTER SYSTEM 400
BOOT SYSTEM
405
INITIATE POWER STATE SELECTION SYSTEM
410
B
C
SELECT AND IMPLEMENT REDUCED POWER STATE
415
RECEIVE AND EXECUTE NETWORK LOAD & USER COMMANDS
420
425
USER OR APPLICATION INDICATE MAXIMUM STATE ?
YES
426
427
NO
435
NETWORK LOAD REPRESENTATION INDICATE MAXIMUM STATE ?
YES
436
430
SELECT AND IMPLEMENT MAXIMUM POWER STATE
437
NO
490
A

FIGURE 4A

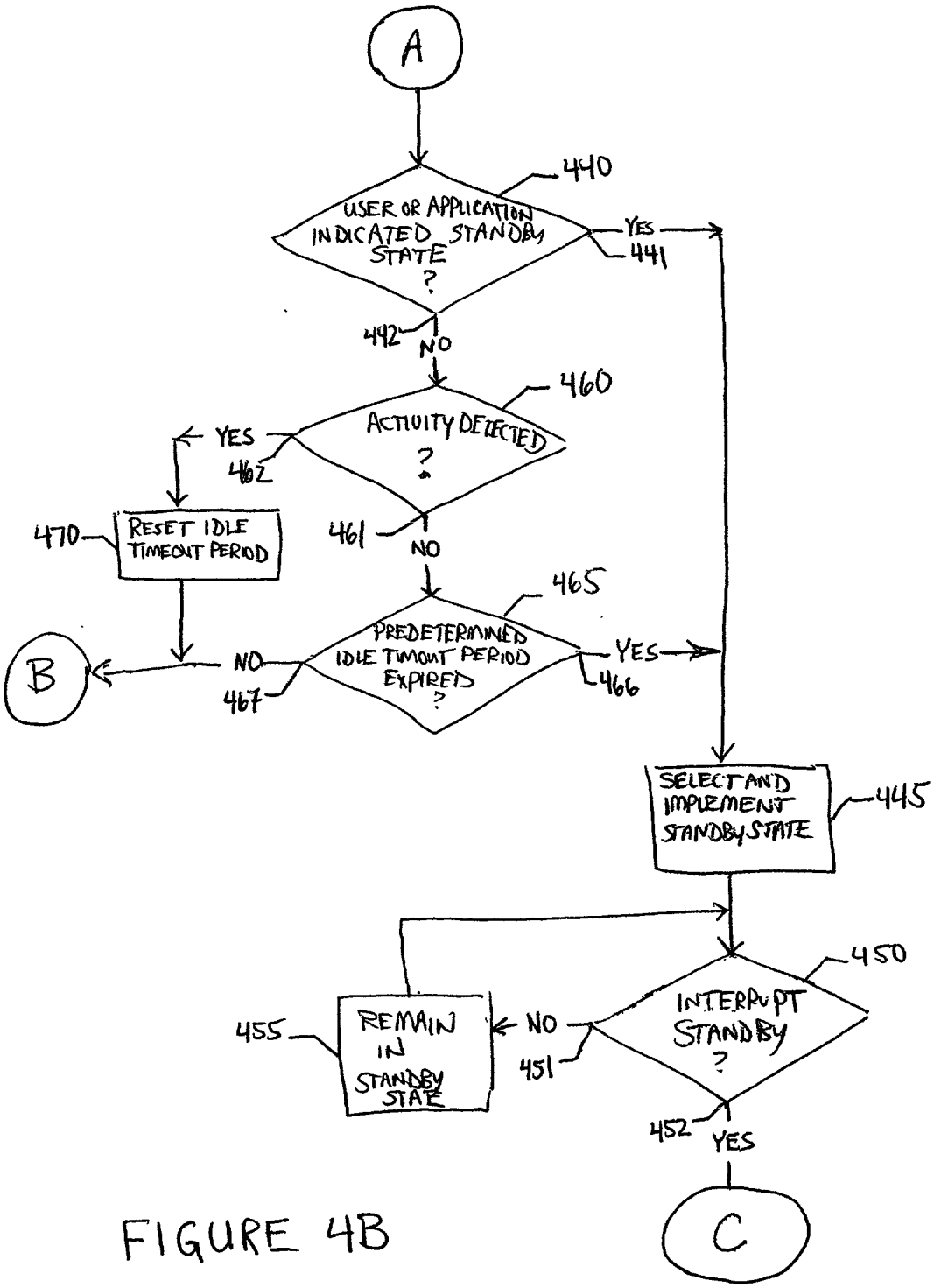
A
440
USER OR APPLICATION INDICATED STANDBY STATE ?
YES
441
442
NO
460
ACTIVITY DETECTED ?
YES
462
470
RESET IDLE TIMEOUT PERIOD
461
NO
465
PREDETERMINED IDLE TIMOUT PERIOD EXPIRED ?
YES
466
B
NO
467
SELECT AND IMPLEMENT STANDBY STATE
445
450
INTERRUPT STANDBY ?
NO
451
455
REMAIN IN STANDBY STATE
452
YES
C

FIGURE 4B

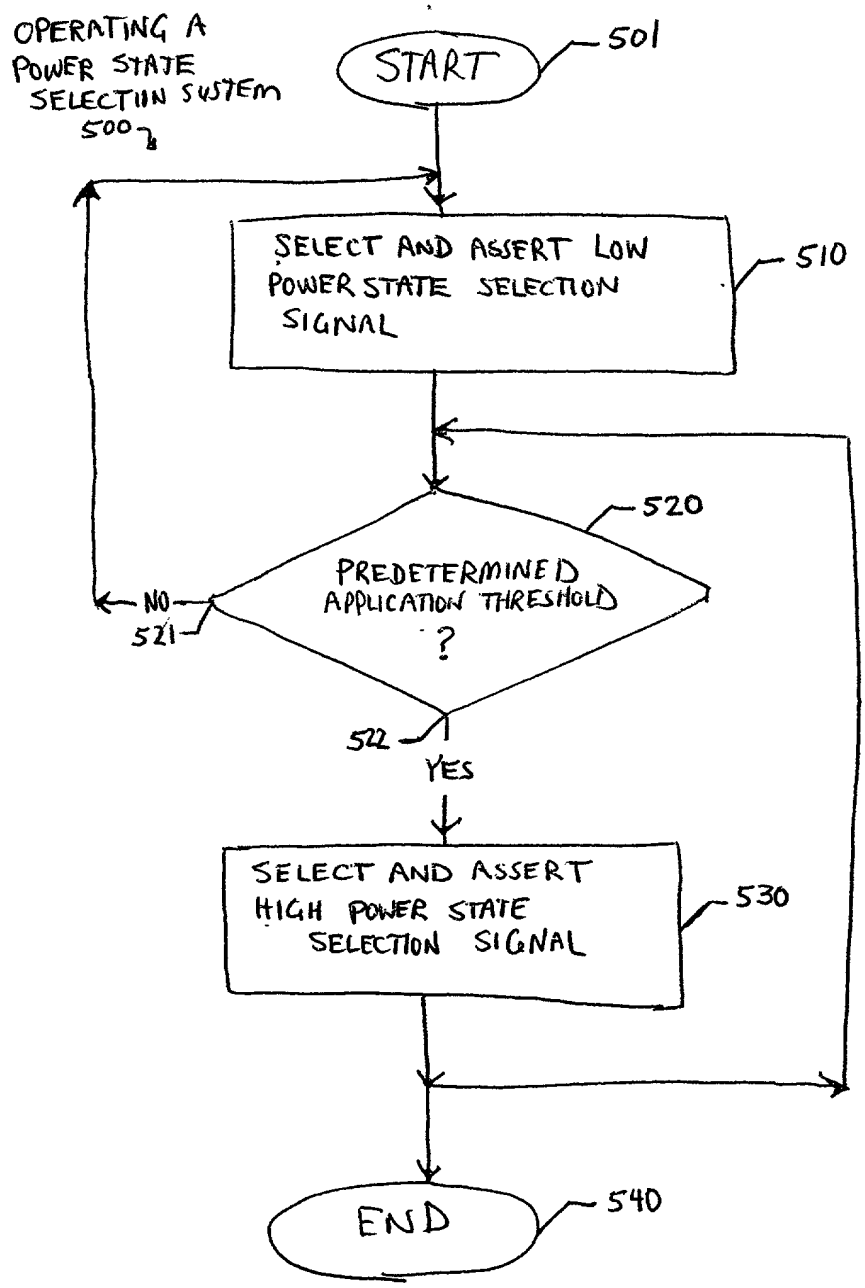
OPERATING A POWER STATE SELECTION SYSTEM 500
START
501
SELECT AND ASSERT LOW POWER STATE SELECTION SIGNAL
510
520
PREDETERMINED APPLICATION THRESHOLD ?
NO
521
522
YES
SELECT AND ASSERT HIGH POWER STATE SELECTION SIGNAL
530
END
540

FIGURE 5

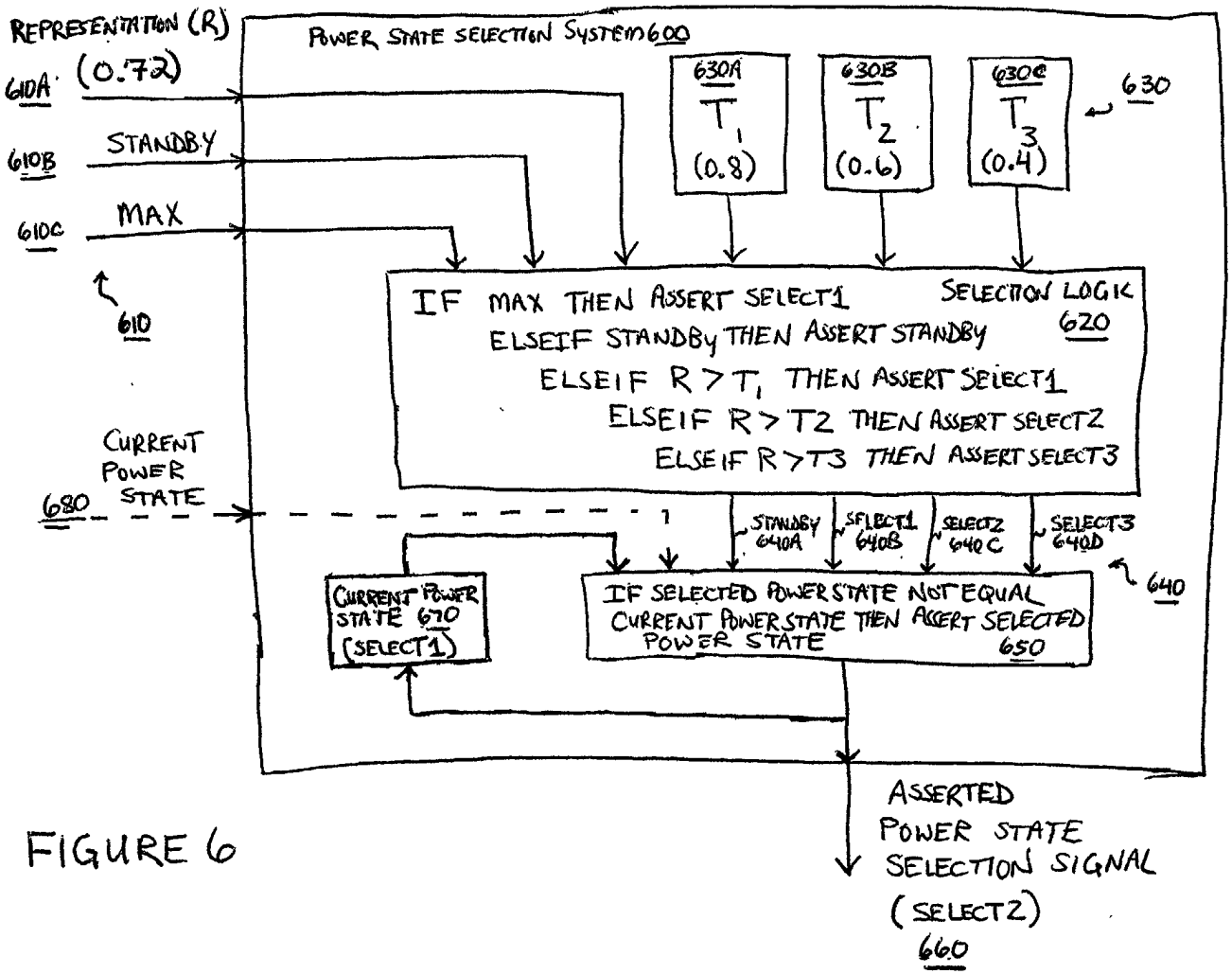
REPRESENTATION (R)
610A (0.72)
610B STANDBY
610C MAX
610
POWER STATE SELECTION SYSTEM 600
630A T1 (0.8)
630B T2 (0.6)
630C T3 (0.4)
630
IF MAX THEN ASSERT SELECT1
ELSEIF STANDBY THEN ASSERT STANDBY
ELSEIF R>T1 THEN ASSERT SELECT1
ELSEIF R>T2 THEN ASSERT SELECT2
ELSEIF R>T3 THEN ASSERT SELECT3
SELECTION LOGIC 620
CURRENT POWER STATE 680
STANDBY 640A
SELECT1 640B
SELECT2 640C
SELECT3 640D
640
CURRENT POWER STATE 670 (SELECT1)
IF SELECTED POWER STATE NOT EQUAL CURRENT POWER STATE THEN ASSERT SELECTED POWER STATE 650
ASSERTED POWER STATE SELECTION SIGNAL (SELECT2) 660

FIGURE 6

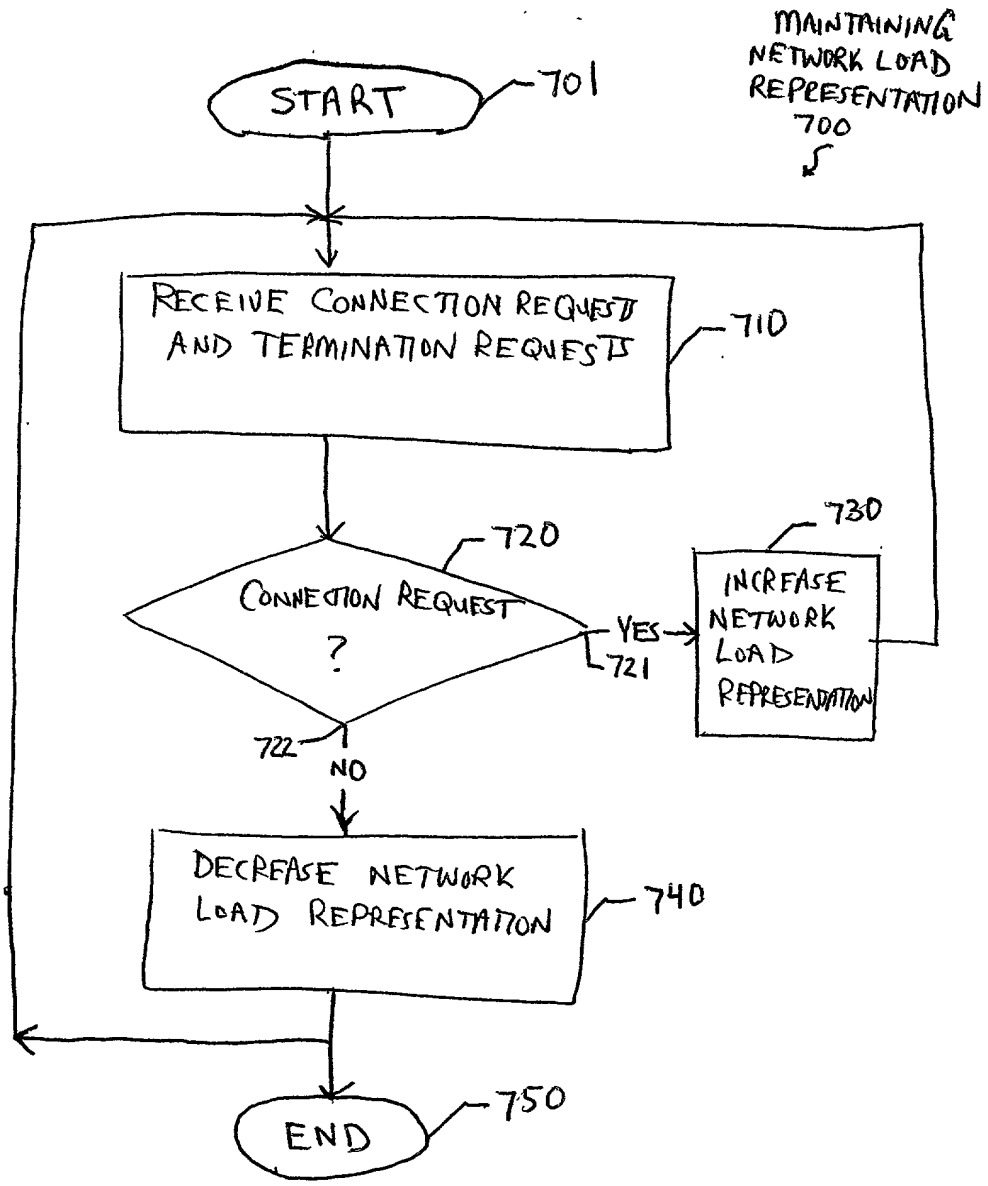
MAINTAINING NETWORK LOAD REPRESENTATION
700
START
701
RECEIVE CONNECTION REQUEST AND TERMINATION REQUEST
710
CONNECTION REQUEST ?
720
YES
721
INCREASE NETWORK LOAD REPRESENTATION
730
722
NO
DECREASE NETWORK LOAD REPRESENTATION
740
END
750

FIGURE 7

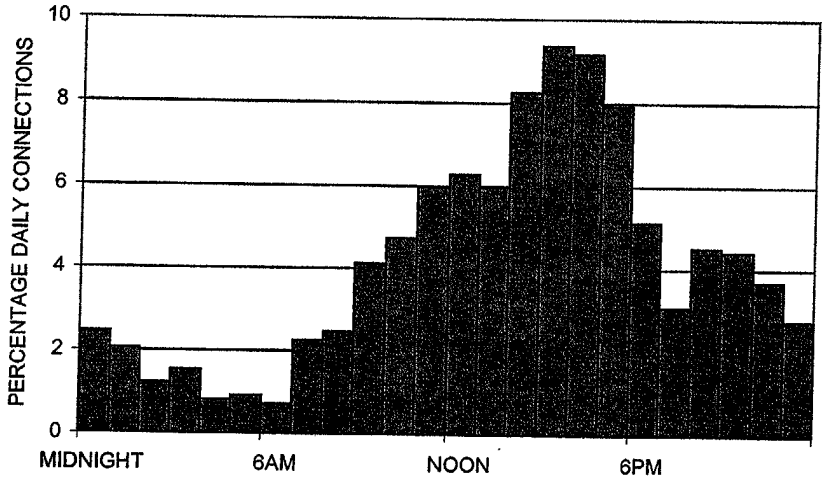
10
8
6
4
2
0
PERCENTAGE DAILY CONNECTIONS
MIDNIGHT
6AM
NOON
6PM

FIGURE 8

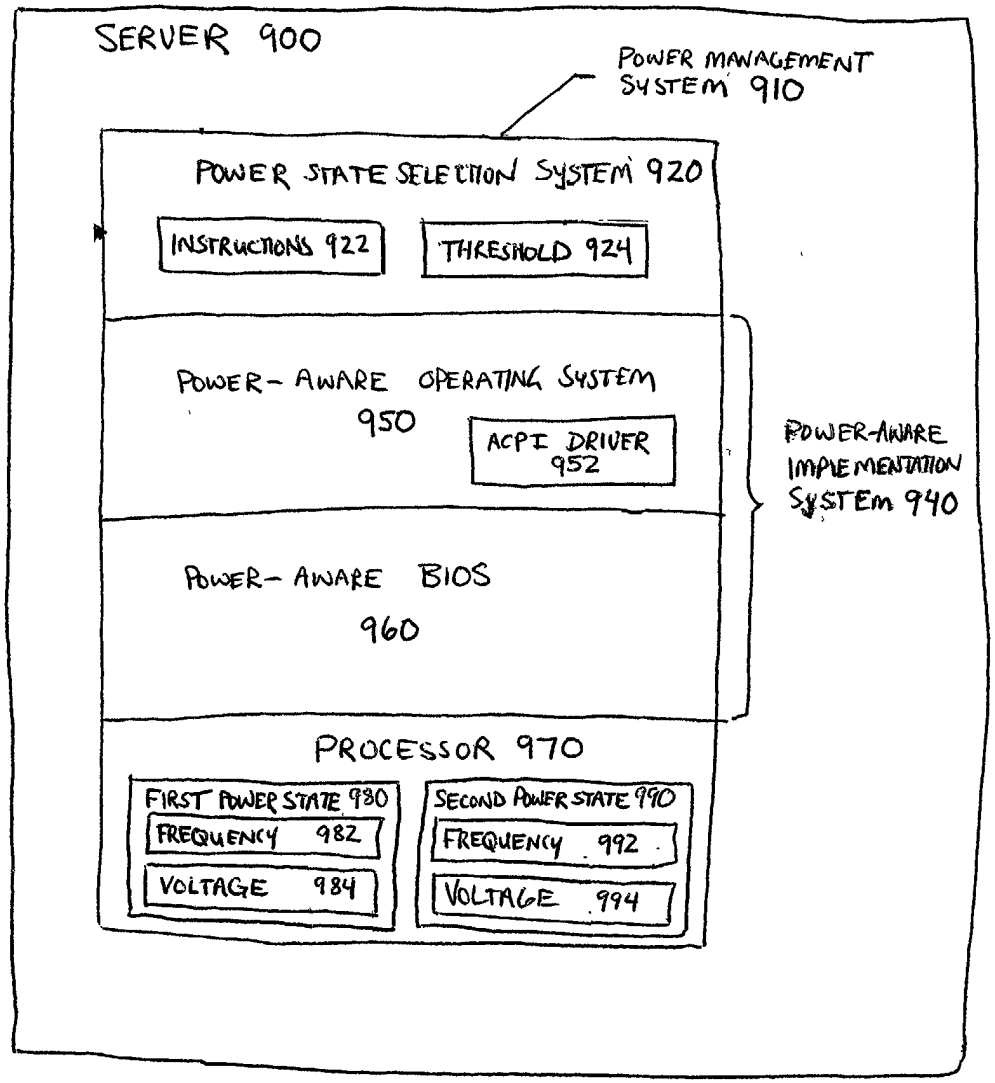
SERVER 900
POWER MANAGEMENT SYSTEM 910
POWER STATE SELECTION SYSTEM 920
INSTRUCTIONS 922
THRESHOLD 924
POWER-AWARE OPERATING SYSTEM 950
ACPI DRIVER 952
POWER-AWARE IMPLEMENTATION SYSTEM 940
POWER-AWARE BIOS 960
PROCESSOR 970
FIRST POWER STATE 980
FREQUENCY 982
VOLTAGE 984
SECOND POWER STATE 990
FREQUENCY 992
VOLTAGE 994

Figure 9

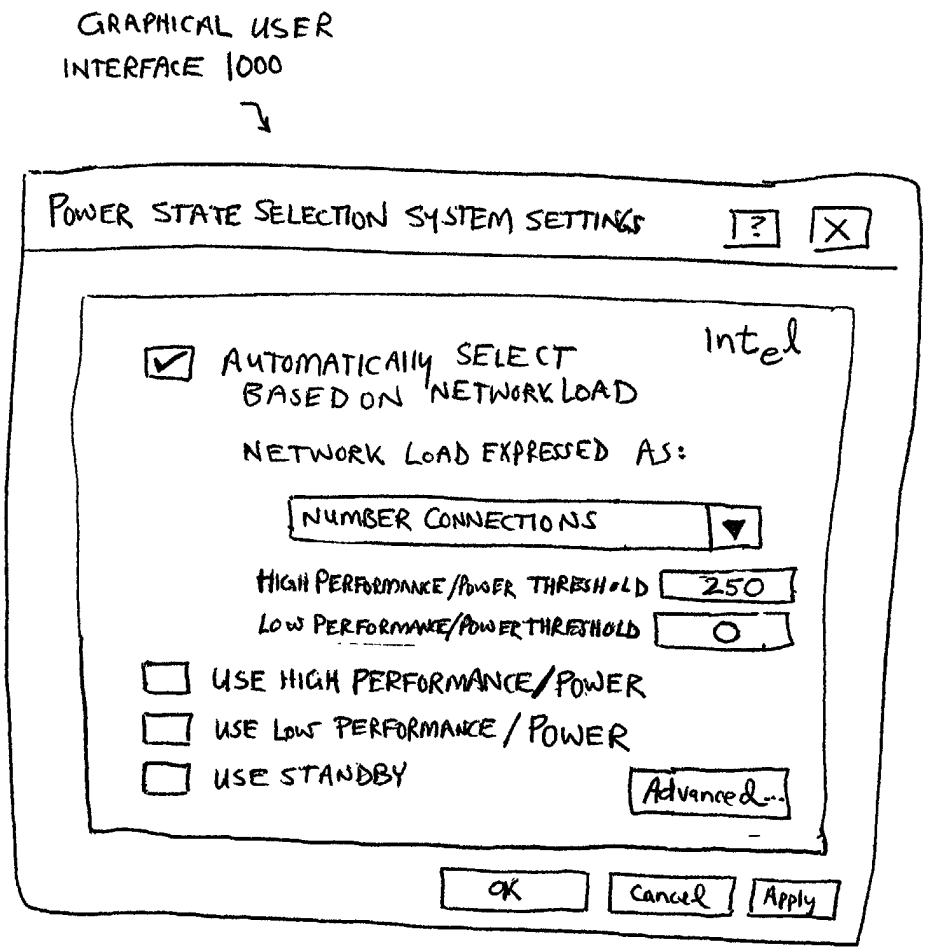
GRAPHICAL USER INTERFACE 1000
POWER STATE SELECTION SYSTEM SETTINGS
?
X
Intel
AUTOMATICALLY SELECT BASED ON NETWORK LOAD
NETWORK LOAD EXPRESSED AS:
NUMBER CONNECTIONS
HIGH PERFORMANCE/POWER THRESHOLD
250
LOW PERFORMANCE/POWER THRESHOLD
0
USE HIGH PERFORMANCE/POWER
USE LOW PERFORMANCE/POWER
USE STANDBY
Advanced...
OK
Cancel
Apply

FIGURE 10

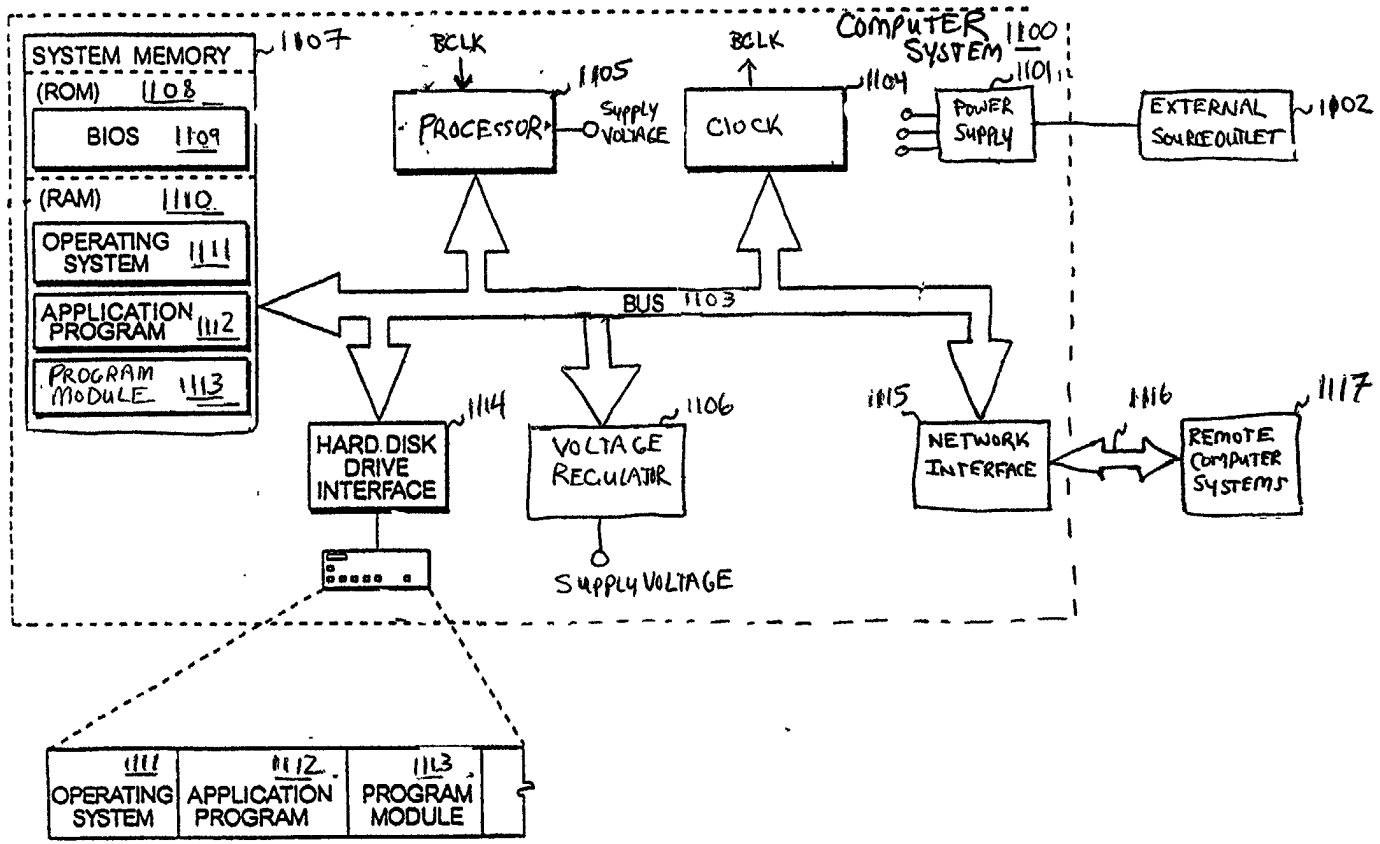
SYSTEM MEMORY
1107
(ROM) 1108
BIOS 1109
(RAM) 1110
OPERATING SYSTEM 1111
APPLICATION PROGRAM 1112
PROGRAM MODULE 1113
BCLK
1105
PROCESSOR
SUPPLY VOLTAGE
BCLK
CLOCK
1104
COMPUTER SYSTEM 1100
1101
POWER SUPPLY
EXTERNAL SOURCE OUTLET
1102
BUS 1103
1114
HARD DISK DRIVE INTERFACE
1106
VOLTAGE REGULATOR
SUPPLY VOLTAGE
1115
NETWORK INTERFACE
1116
1117
REMOTE COMPUTER SYSTEMS
1111
OPERATING SYSTEM
1112
APPLICATION PROGRAM
1113
PROGRAM MODULE

FIGURE 11